



Associate Administrator for Enforcement,
National Highway Traffic Safety
Room 5326
400 Seventh Street S. W.
Washington, DC 20590

03V-120

May 24, 2003

Subject: **PART 573— DEFECT AND NONCOMPLIANCE REPORTS**
Emergency Window Handle pull force, installed in Orion buses

In accordance with 49 U.S.C. § 30118 and 49 CFR Part 573.5 Orion Bus Industries is submitting updated information regarding a potential defect that is currently under our investigation. The defect relates to the emergency window installed in, Orion transit busses.

Enclosed are the recall notice and the recommended maintenance procedure. Orion will distribute the notice upon receipt of your acceptance.

Should you have any questions or wish to discuss this matter further, please do not hesitate to contact me.

Sincerely,

J. Labonte

Joe Labonte
Compliance and Safety Officer
Member of American Society of Safety Engineers
(905) 403-7832 ext. 3335

Orion Bus Industries Ltd.
350 Hazelhurst Road
Mississauga, Ontario
L5J 4T8
Tel: (905) 403-1111
Fax: (905) 403-8900

Orion Bus Industries Inc.
166 Base Road,
PO Box 748
Oriskany, NY 13424-0748
Tel: (315) 223-5100
Fax: (315) 768-5520

Orion Parts - Canada
350 Hazelhurst Road
Mississauga, Ontario L5J 4T8
Tel: (905) 403-7800
Tel: (800) 666-2871
Fax: (800) 297-5249

Orion Parts - USA
1850 Blue Road, PO Box 748
Oriskany, NY 13424-0748
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Tel: (800) 786-8088
Fax: (800) 211-3700

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OFFICE OF DEFECTS
INVESTIGATION



Service Information Letter

Number: SIL-03/02

Subject: Emergency Exit Window Maintenance for Excel™ Type Egress Window Assemblies.

Applicability: All Orion II, V, VI Vehicles with Emergency Exit Window Handles.

Overview

The Federal Motor Vehicle Safety Standards (FMVSS) requires that the release locking mechanism operation force on emergency egress windows is not to exceed 20 lbs. (89 newtons). Regular inspection and maintenance, as outlined in the Atwood maintenance procedure, must be integrated into the owner's regular maintenance program to ensure ongoing compliance over the life of the vehicle.

NOTE

Regular maintenance of the emergency release handle mechanism requires the operator to inspect and remove debris and lubricate window components. In addition, testing the handle mechanism should be performed as part of the regular maintenance cycle every 6,000 miles (9,600 km) or 1,200 hours of operation (whichever comes first).

NOTE

Contamination and the lack of lubrication of key components are the most common and frequent cause of pull force exceeding the FMVSS/CMVSS requirements.

Maintenance Procedure

Lubricating Window Tracks

CAUTION !

Use only aerosol white lithium grease. Other lubricants may contain chlorine or fluorine compounds which will damage the integrity of the nylon slides.

1. From inside the vehicle, pull the egress handle and open the window.
 2. From outside the vehicle, lift the window and from the bottom and check nylon slides for dirt matter and debris, or any other contaminants which could restrict the bolt from sliding. Remove all debris.
 3. Inspect the cable between the egress handle on one end of the cable and the steel bar on the opposite end.
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NOTE

Check the cable tracks around the window corners and inspect for additional debris or frayed cable. Clean debris away and replace the frayed cable.

4. Spray white lithium grease to the window track (to the left and right of each nylon slide (2)) and the aluminum channel area where the nylon slides travel. See Figure 1-1.
 5. Apply white lithium grease to the cable (2). See Figure 1-2.
 6. From inside, work the handle open and closed several times.
 7. From outside the vehicle, close the window.
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Checking Egress Handle Tension

1. Attach tension gauge (3) to the egress handle (1) with a wire tie (2). See Figure 1-3.
 2. Slowly pull the gauge (3) until egress handle (1) releases. See Figure 1-4.
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NOTE

When testing the handle tension, perform three consecutive tests, and calculate the average pull force.

3. Check the reading: An acceptable reading is 20 lbs. (89 newtons) or less.
 4. If reading exceeds 20 lbs. (89 newtons), repeat steps 1 - 7 and 1 - 4 above.
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5. If reading exceeds 20 lbs. (89 newtons), call the Atwood Engineering Department at 280-463-2116.

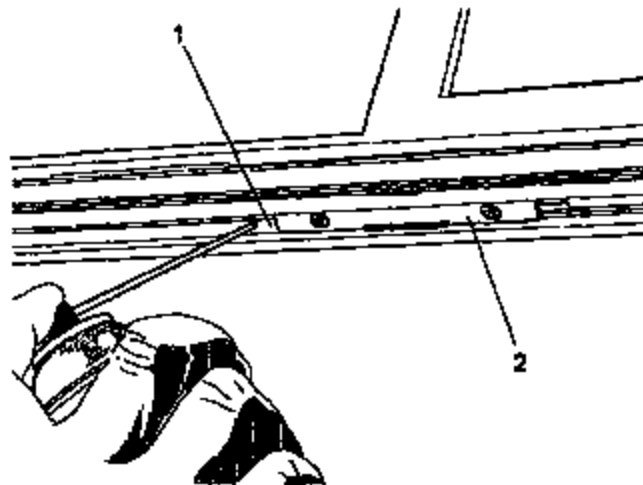


Figure 1-1 Applying Lithium Grease to Window Track

LEGEND

1. Left side of nylon slides 2. Nylon slide

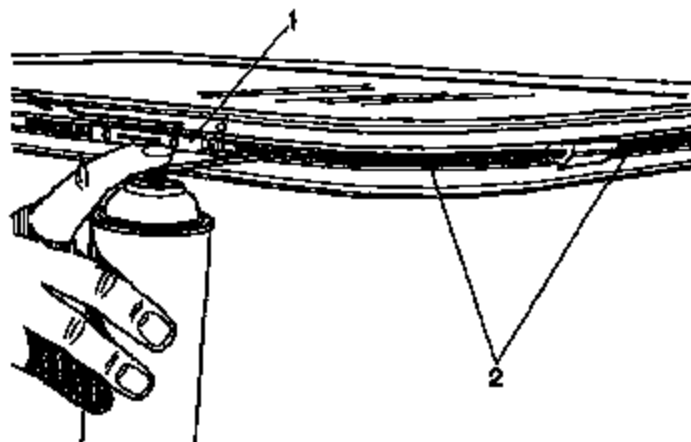


Figure 1-2 Applying Lithium Grease to Cable

LEGEND

1. Nylon slide 2. Cable

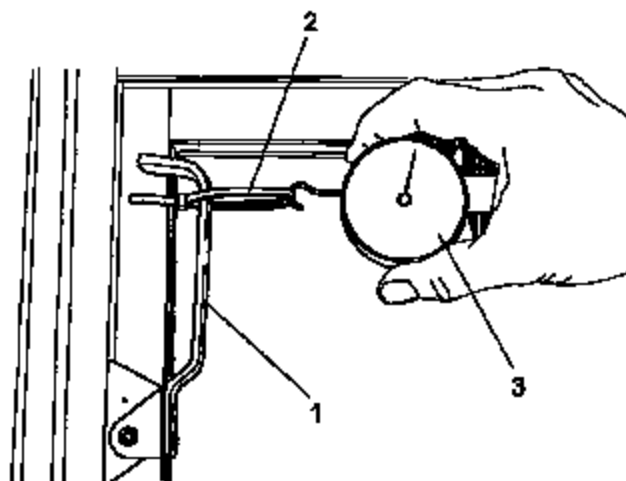


Figure 1-3 Attaching Tension Gauge to Egress Handle

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- 1. Egress Handle (in closed position)
- 2. Wire Tie
- 3. Force Gauge

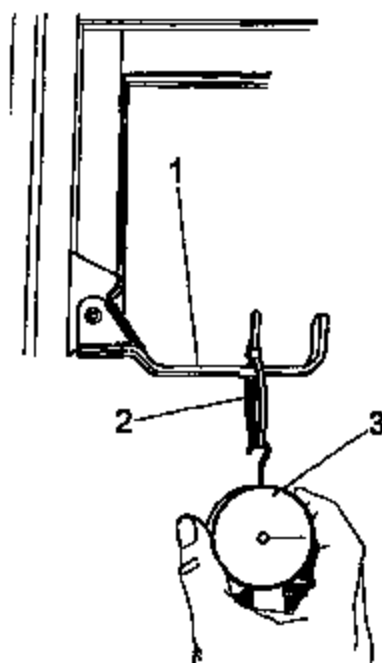


Figure 1-4 Checking Egress Handle Tension

LEGEND

- 1. Egress Handle (in open position)
- 2. Wire Tie
- 3. Force Gauge

Materials and Equipment

Item	Quantity
Force Gauge	1
Wire Tie	1
White Lithium Grease (aerosol)	1

Service Information

Inquiries for materials and any additional instructions pertaining to these instructions can be made by calling:

**Atwood Mobile Products
LaGrange Operations
Engineering Department
(260)-463-2116**



Recall Bulletin

Recall Number:

National Traffic and Motor Vehicle Safety Number (NHTSA): 03V-120

Subject:

SAFETY DEFECT - ORION II, V, VI Emergency Exit Window Handles.

Vehicles Affected:

SPECIFIC ORION BUS INDUSTRIES INC. CITY TRANSIT BUSES of the Orion II, V and VI model years 1985 - 2003 that have emergency windows utilizing a red handle that does not meet the pull force requirement of 20lbs. Certain window designs are excluded from specific steps as shown below.

General Information:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Orion Bus Industries Inc. has determined that a defect, which relates to the motor vehicle safety, exists in some of its transit buses equipped with emergency windows utilizing red handles.

Failure to correct the affected windows may increase the force required to open a window in the event of an emergency. Orion Bus Industries Inc. has identified your company as a potential owner of one of the vehicles affected by this recall.

The corrective action is outlined below.

Regular Maintenance and Test Procedure

Perform maintenance on the window at the regular interval as per Atwood Maintenance Procedure.

Checking Egress Handle Tension

1. Attach force gauge (3) to the egress handle with a wire tie (2). See Figure 1-1.
2. Slowly pull the gauge (3) until egress handle (1) releases. See Figure 1-2.

NOTE

When testing the handle tension, perform three consecutive tests, and calculate the average pull force.

3. Check reading: An acceptable reading is 20 lbs. (90 newtons) or less.

4. If reading exceeds 20 lbs. (90 newtons), call the Atwood Quality Department at 1-800-492-2116 before proceeding to the following recall procedures.

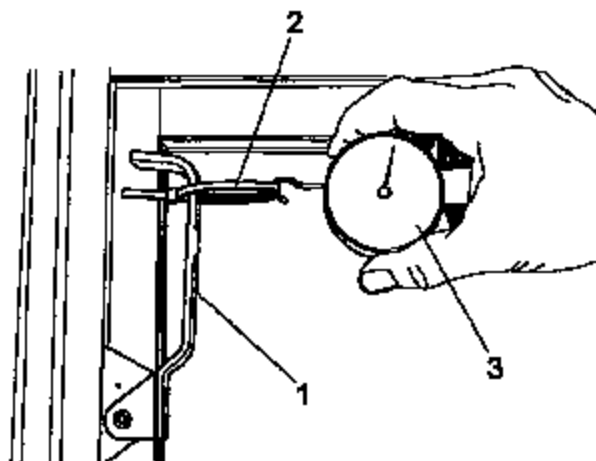


Figure 1-1 Attaching Tension Gauge to Egress Handle

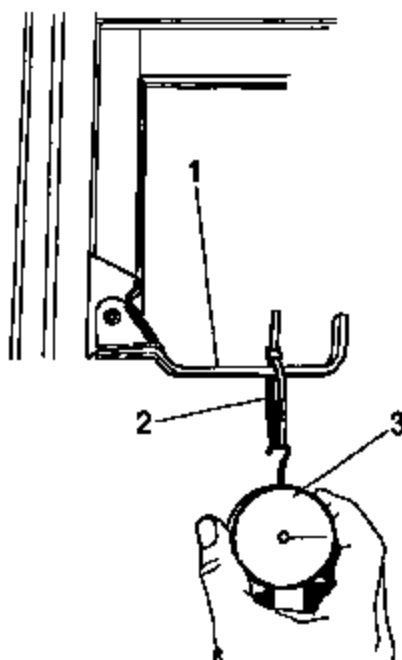


Figure 1-2 Checking Egress Handle Tension

LEGEND

- | | |
|-------------------------------------|----------------|
| 1. Egress Handle (in open position) | 3. Force Gauge |
| 2. Wire Tie | |

Recall Procedure

Checking Wedge Spacer Blocks

1. Push open the bottom of the egress window.
2. Locate the wedge spacer block located above the emergency handle mechanism. See Figure 1-3.
3. If the wedge spacer block (3) is loose, remove the block out of the channel with a screw driver. See Figure 1-4.

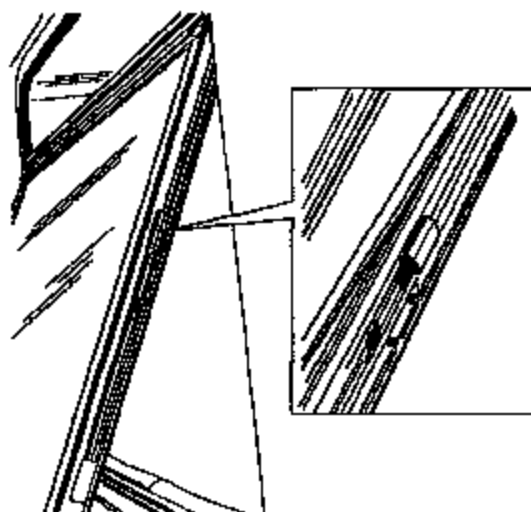


Figure 1-3 Wedge Spacer Block Location

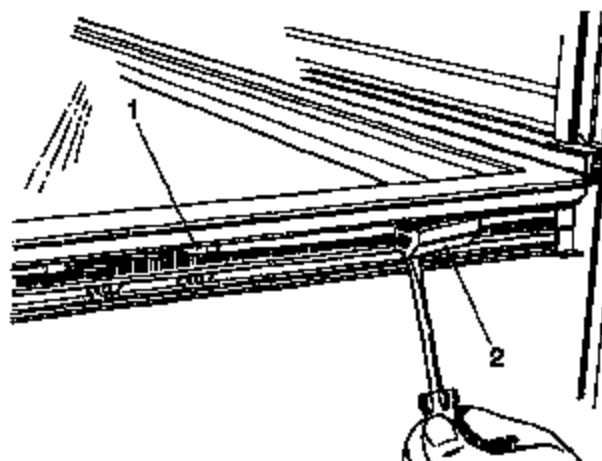


Figure 1-4 Removing Wedge Spacer Blocks

LEGEND

1. Handle

2. Wedge Spacer Block

Checking Retention Spring

1. Locate the two retention springs (1) on the lower inside window frame. See Figure 1-5.
2. Lightly loosen the two screws (2) on the lower inside window frame. See Figure 1-5.
3. Push the retention spring as far as possible towards the outside of the vehicle. See Figure 1-5.
4. Once in place, hold and tighten with screws to (30 - 35 in-lbs).

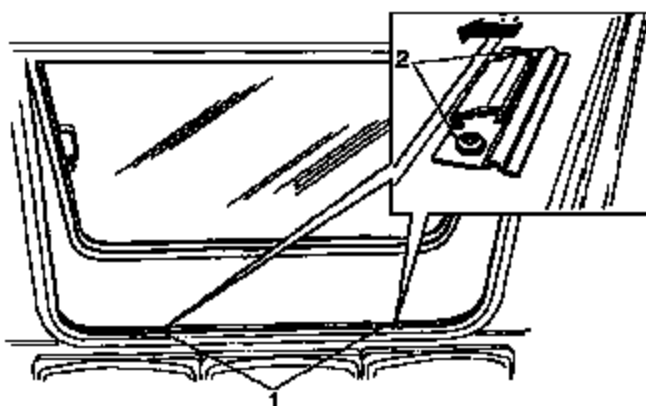


Figure 1-5 Retention Springs

LEGEND

- | | |
|----------------------|----------------------------|
| 1. Retention Springs | 2. Retention Spring Screws |
|----------------------|----------------------------|

Contact

If you have any questions on how to meet the 20 lbs. pull force requirement, you can contact Orion's Agent at the Atwood Quality Department:

**Atwood Quality Department
Lagrange Operations
Lagrange, IN
1-800-492-2116**

Labor Allowance:

If the steps under the Wedge Spacer Block and Retention Spring sections of this service bulletin are required, the cost of labor will be reimbursed.

Procedure	Time Allowed (hours)
Removal of loose wedge block	5 minutes per window
Loosening and realignment of retention spring	5 minutes per window
Additional work (if required)	5 minutes per window

Record of Completion:

Report the completion of this work for each vehicle and deliver to:

ORION BUS INDUSTRIES LTD.
Recall Orion Emergency Exit Pull Handle
Mississauga, Ontario L5J 4T8
Fax: (905) 403-8800
mcalissy@orionbus.com

Claims for Credit:

Reimbursements will be issued only after the record of completion report has been submitted to Orion. Include the campaign number and the date the work was performed on the copy of the work order along with the standard warranty claim form. For warranty claim form completion instructions, see Section 5 - 6 of the Warranty & Policy Manual and mail to either:

ORION BUS INDUSTRIES LTD.
c/o WARRANTY DEPARTMENT
350 Hazelhurst Road
Mississauga, Ontario L5J 4T8
Tel: (905) 403-1111
Fax: (905) 403-8800

ORION BUS INDUSTRIES INC.
c/o WARRANTY DEPARTMENT
165 Base Road, Box 748
Oriskany, NY 13424-0748
Tel: 1-800-71-ORION
Fax: (315) 768-8414

If, after contacting Orion Bus Industries Agent at 1-800-492-2116, you are still unable to have the safety defect remedied, US residents may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, DC 20590 or call the toll free Auto Safety Hotline at 1-888-327-4236 Washington DC area residents may call (202) 368-0123.

Orion Bus Industries Inc. Vehicle Regulations and Compliance Department

